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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,062	12/26/2000	Shinichi Shiotsu	001665	1988
38834	7590	03/23/2005	EXAMINER	
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP			LEE, JOHN J	
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SUITE 700			PAPER NUMBER	
WASHINGTON, DC 20036			2684	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/746,062	Applicant(s) SHIOTSU ET AL.	
	Examiner JOHN J LEE	Art Unit 2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-12,15-19,21-33,36-42 and 45-59 is/are rejected.
- 7) ☒ Claim(s) 2,3,13,14,20,34,35,43 and 44 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1, 4-9, 11, 12, 15-19, 22-30, 32, 33, 36-42, and 45-59** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell (US Patent number 6,445,921) in view of Lau et al. (US Patent number 6,690,657).

Regarding **claim 1**, Bell discloses that an information processing device (Fig. 2 and could be anything, base station, telephone, PDA). Bell teaches that a plurality of communication units (230 and 235 in Fig. 2) each having a baseband unit (210 in Fig. 2) and a wireless transceiver (215, 216 in Fig. 2) coupled to the baseband unit (210 in Fig. 2) (Fig. 2 and column 2, lines 59 – column 3, lines 49, where teaches a information processing device comprises a plurality of antenna unit (communication unit) having baseband unit coupled to wireless transceiver). Bell teaches that a monitoring and controlling unit (240 in Fig. 2) for monitoring and controlling said communication units (Fig. 2) (Fig. 2 and column 2, lines 59 – column 3, lines 49, where teaches the microprocessor controls and monitors other units in the information device). Bell teaches that the monitoring and controlling unit (240 in Fig. 2) being wired to said communication units (Fig. 2 teaches the microprocessor being connected with wired to other units), wherein the monitoring and controlling unit (240 in Fig. 2), when at least

one of said plurality communication units (230, 235 in Fig. 2) maintains a connection, iteratively monitors a communication state (signal strength) of at least another one of said plurality of communication units (Fig. 2 and column 3, lines 17 – column 4, lines 5, where teaches the microprocessor uses the RSSI (received signal strength indicator) signal to determine the presence communication condition by monitoring the received signal). Bell teaches that adjusts a communication condition (RSSI) of the wireless transceiver of said one communication unit (230, 235 in Fig. 2) in accordance with the communication state (signal strength condition) of the monitored other communication unit (Fig. 2 and column 3, lines 17 – column 4, lines 5, where teaches the microprocessor controls signals to decrease or increase the transmit power level).

Bell does not exactly disclose the limitation “processor adjusts a communication condition of the wireless transceiver”. However, Lau discloses the limitation (Fig. 15 and column 8, lines 50 – column 9, lines 24 where teach each wireless communication unit detects the signal strength and controls output power for adjusting response to commands from the base station). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Bell system as taught by Lau. The motivation does so would be to achieve an efficient controlling the communication condition for enhancing communication quality in wireless information device.

Regarding **claim 4**, Bell and Lau disclose all the limitation, as discussed in claim 1. Furthermore, Bell further discloses that the monitoring and controlling unit iteratively monitors a current state of said other communication unit relating to a connection thereof or a state of said other communication unit relating to a connection thereof expected to

occur within a short time period (Fig. 2 and column 3, lines 17 – column 4, lines 5, where teaches the microprocessor controls monitors a current communication condition and determine transmit power level within a time period).

Regarding **claim 5**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 4.

Regarding **claim 6**, Bell and Lau disclose all the limitation, as discussed in claim 1. Furthermore, Bell further discloses that the monitoring and controlling unit causes another information processing device with which said information processing device is communicating through said one communication unit, to adjust a transmission condition of a wireless transceiver of a communication unit of said another information processing device, too (Fig. 2 and column 3, lines 17 – column 4, lines 5, where teaches the microprocessor controls signals to decrease or increase the transmit power level).

Regarding **claim 7**, Bell and Lau disclose all the limitation, as discussed in claim 1. Furthermore, Bell further discloses that connected communication unit (230, 235 in Fig. 2) is controlled also in accordance with the monitored reception power (RSSI signal) and with an application activated for data transfer via said one communication unit or device data of another information processing device with which said information processing device is communicating (Fig. 2, 3 and column 2, lines 59 – column 3, lines 49).

Regarding **claim 8**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 5. Furthermore, Bell further discloses that the monitoring and controlling unit further monitors signal quality if a signal received by the transceiver of the one,

connected communication unit, and the transmission condition of the wireless transceiver of the one, connected communication unit is controlled further in accordance with the monitored signal quality at said one communication unit (Fig. 2, 3 and column 3, lines 17 – column 4, lines 5).

Regarding **claim 9**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 7. Furthermore, Bell further discloses that the transmission condition of the wireless transceiver of the one, connected communication unit is controlled also in accordance with a state of a RF signal received at a communication unit of another information processing device with which said one, connected communication unit is communicating (Fig. 2, 3 and column 2, lines 59 – column 3, lines 49).

Regarding **claim 11**, Bell discloses that the plurality of communication units conform with at least one of the Bluetooth standard, the wireless LAN standard and the mobile communication network mobile station standard (column 2, lines 34 – 58 and Fig. 1).

Regarding **claim 12**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 7.

Regarding **claim 15**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 7.

Regarding **claim 16**, Bell and Lau disclose all the limitation, as discussed in claims 7 and 12.

Regarding **claim 17**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 12.

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Regarding **claim 18**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 6.

Regarding **claim 19**, Bell and Lau disclose all the limitation, as discussed in claims 6 and 12.

Regarding **claim 22**, Bell and Lau disclose all the limitation, as discussed in claims 11 and 12.

Regarding **claim 23**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 12.

Regarding **claim 24**, Bell and Lau disclose all the limitation, as discussed in claims 6 and 12.

Regarding **claim 25**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 12.

Regarding **claim 26**, Bell and Lau disclose all the limitation, as discussed in claims 12 and 17.

Regarding **claim 27**, Bell and Lau disclose all the limitation, as discussed in claims 6 and 12.

Regarding **claim 28**, Bell and Lau disclose all the limitation, as discussed in claims 12 and 18.

Regarding **claim 29**, Bell and Lau disclose all the limitation, as discussed in claims 12 and 15.

Regarding **claim 30**, Bell and Lau disclose all the limitation, as discussed in claims 11 and 12.

Regarding **claims 32 and 59**, Bell discloses that transmission condition is transmission power, a transmitter amplifier gain, an amount of attenuation provided by an attenuator, an antenna gain **or** an antenna direction (Fig. 2 and column 3, lines 17 – column 4, lines 5).

Regarding **claim 33**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 12.

Regarding **claim 36**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 4.

Regarding **claim 37**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 5.

Regarding **claim 38**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 6.

Regarding **claim 39**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 8.

Regarding **claim 40**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 7.

Regarding **claim 41**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 8.

Regarding **claim 42**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 12.

Regarding **claim 45**, Bell and Lau disclose all the limitation, as discussed in claims 12 and 15.

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Regarding **claim 46**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 12.

Regarding **claim 47**, Bell and Lau disclose all the limitation, as discussed in claims 12 and 17.

Regarding **claim 48**, Bell and Lau disclose all the limitation, as discussed in claims 12 and 18.

Regarding **claim 49**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 6.

Regarding **claim 50**, Bell and Lau disclose all the limitation, as discussed in claims 11 and 12.

Regarding **claim 51**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 12.

Regarding **claim 52**, Bell and Lau disclose all the limitation, as discussed in claims 6 and 12.

Regarding **claim 53**, Bell and Lau disclose all the limitation, as discussed in claims 1 and 12.

Regarding **claim 54**, Bell and Lau disclose all the limitation, as discussed in claims 12 and 17.

Regarding **claim 55**, Bell and Lau disclose all the limitation, as discussed in claims 6 and 12.

Regarding **claim 56**, Bell and Lau disclose all the limitation, as discussed in claims 12 and 18.

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Regarding **claim 57**, Bell and Lau disclose all the limitation, as discussed in claims 12 and 15.

Regarding **claim 58**, Bell and Lau disclose all the limitation, as discussed in claims 11 and 12.

3. **Claims 10, 21, and 31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell in view of Lau and in further view of Mackay (US Patent number 6,600,727).

Regarding **claims 10, 21, and 31**, Bell and Lau do not specifically disclose the limitation “the plurality of communication units are formed in built-in or detachable modules”. However, Mackay discloses the limitation “the plurality of communication units are formed in built-in or detachable modules” (column 6, lines 51 – column 7, lines 8 and Fig. 8). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Bell and Lau systems as taught by Mackay. The motivation does so would be to achieve enhancing repeater performance and achieve reducing cost in wireless communication system.

Allowable Subject Matter

4. Claims 2, 3, 13, 14, 20, 34, 35, 43, and 44 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record fails to disclose “the monitoring and controlling unit changes the transmission power level or signal quality of said wireless transceiver of said

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one, connected communication unit to a lower level so that a RF signal transmitted from the wireless transceiver of said one communication unit may not substantially interfere with the reception of a RF signal by the wireless transceiver of said other communication" as specified in the claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sydon et al. (US 2002/0107047) discloses Combined Wireless Data and Voice Communications.

Morvan et al. (US Patent number 6,574,452) discloses Communication in a Network.

Information regarding...Patent Application Information Retrieval (PAIR) system... at 866-217-9197 (toll-free)."

Any response to this action should be mailed to:

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or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

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(703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John J. Lee** whose telephone number is (703) 306-5936. He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00 pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, **Nay Aung Maung**, can be reached on (703) 308-7745. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

J.L.
March 10, 2005

John J Lee



NICK CORSARO
PRIMARY EXAMINER